

## Description

The T70 is Chirped Fiber Bragg Grating (FBG) is available in a wide range of optical specifications. It is produced by axially varying either the period of the grating or the effective index of refraction of the fiber.

Technica manufactures Chirped FBGs by using a non-periodic phase mask. By modifying the intensity of the grating depth we can reach essentially any predefined gain compensation profile. This, in turn, yields stable and reliable gain flat filters.

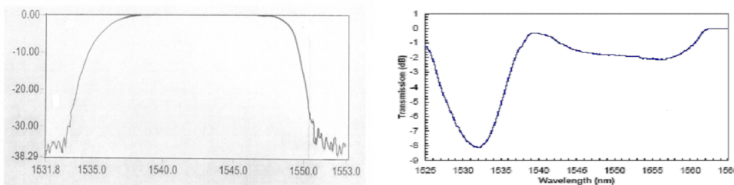
Our T70 wide-bandwidth chirped FBGs improve the wavelength stability of ultrafast mode-locked fiber lasers while also minimizing their output power variations as required for various telecom, distributed sensing, industrial, and various research applications.

The T70 FBG is designed to make handling and installation fast, easy and intuitive. Naturally packaged directly in bare fiber, these sensors are ultra-small and are designed for use in tight spaces.

The FBG specifications listed herein represent the most popular configuration. Many optical and physical variations are available.

## Key Features

**Wide Bandwidth.** The precision made FBG structure yields a wide range of bandwidth specifications as may be required for applications including signal conditioners for microwave photonics (MWP), gain flattening filters for EDFA and ASE light sources, add-drop filters for CWDM and other WDM technology based systems, distributed sensing, and chromatic dispersion compensation.



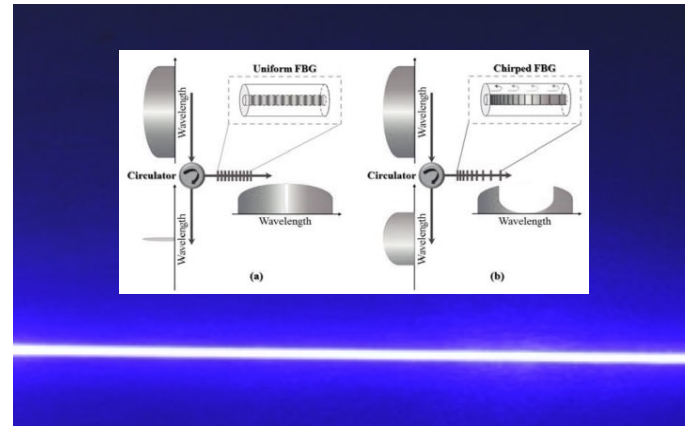
Typical wideband Chirp FBG reflection spectrum

Typical GFF spectrum

**Easy to daisy-chain.** The T70 can be provided as single FBGs or in FBG Arrays of various lengths and with a flexible number of FBGs, as defined by the customer's application.

**Low cost and long lifetime.** The T70 is designed as a core element for telecom, industrial, and research environments that require both the availability of low-cost FBGs in volume and stable operation for highly accurate measurements over the long-term.

**Proven field performance.** The T70 has been in production for several years and has received excellent customer feedback.



FBGs manufactured and sold by Technica under International License from United Technologies Corporation, Inc.

Parameter	Specifications
Wavelengths	1520 nm -1570 nm or custom
Reflection BW (FWHM)	2 nm to 50 nm +/- 1nm
Reflectivity %	10% to 99.95% flat top typically >99%
Isolation (SLSR)	15 dB, 20dB, 25dB or custom
Insertion Loss	0.2 dB to 0.5 dB
Tensile Strength	> 100 kpsi
FBG Length	5mm to 50 mm
Fiber Type	SMF-28 compatible, bending insensitive, PM
Fiber Coating	Acrylate, polyimide, custom
Fiber Bend Radius	>17mm, or custom
Optical Connector	FC/APC, or custom

## Applications in Telecom, Sensing, Instrumentation, Microwave Photonics, and Industrial.

Technica undertakes a rigorous development process before products release. The company is also firmly committed to continuous improvements after release to insure performance to the highest standards, hence, specifications are subject to update without notice.

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